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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,460	01/20/2004	Kang Soo Sco	1740-000067/US	7835
30593 7590 07/31/2007 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER DEBELIE, MITIKU W	
			ART UNIT 2621	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/759,460	Applicant(s) SEO ET AL.	
	Examiner Mitiku Debelie	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/20/2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/30/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Korea on January 20, 2003 and February 14, 2003. It is noted, however, that applicant has not filed a certified copies of the 10-2003-003784 and 10-2003-009485 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

2. The reference listed in the information disclosure statement filed on 11/30/2004 has been considered by the examiner.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1 – 22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 - 18 of copending Application No. 10/759425. Although the conflicting claims are not identical, they are not patentably distinct from each other because both inventions relate to managing reproduction of still images and related data associated with the still pictures with the related data being graphic data and subtitle data. Both inventions also relate to multiplexing the still image and the related associated data into transport stream and packetized elementary streams.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1 - 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 1 and 17 define a recording medium having a data structure for managing reproduction of still images. The claimed invention would have been statutory had it been worded to include computer program embedded in a computer readable medium. Computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationship between the computer program and the rest of the computer which

permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Okada et al. (U.S. Patent Number 6,122,436).

9. As to claim 17, Okada teaches a recording medium having a data structure for managing reproduction of still images, comprising (see col. 1, lines 8 – 12):

a data area storing presentation data in a first clip file and audio data in a second clip file, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data (see col.1, lines 34 – 47).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1 – 3, 11 - 14, 16, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al. (U.S. Patent Number 6,122,436) and in view of Sako et al. (U.S. Patent Number 6,829,211).

12. As to claim 1, Okada discloses a recording medium having a data structure for managing reproduction of still images, comprising (see col. 2, lines 8 - 12):

a data area storing presentation data, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture (see Fig. 11). Okada however does not teach related none-audio data being associated with the still picture being managed. Sako, from the same field of endeavor, teaches associating related none- audio data with the still picture being managed (see col. 16, lines 66 – 67, col. 17, lines 1 – 3).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate associating related data with still picture as taught by Sako to the device of Okada in order to provide more supplemental description to the still picture visually presented to the user.

As to claim 2, Sako teaches a recording medium wherein the related data in at least one still picture unit includes a graphic data (see col. 16, lines 66 – 67, col. 17, lines 1 – 3).

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As to claim 3, Sako teaches a recording medium wherein the related data in at least one still picture unit includes a subtitle (character) data (see col. 16, lines 66 – 67, col. 17, lines 1 – 3).

As to claim 11, combined teachings Okada and Sako disclose a recording medium wherein each elementary stream of the still picture and associated related data is aligned within the still picture unit (see Okada Figs. 4, 10(a) – 10(c) and Sako Figs. 10(a) – 10(d) and col. 16 lines 66 – 67, col. 17. lines 1 - 3).

As to claim 12, combined teachings of Okada and Sako disclose a recording medium wherein each elementary stream is a packetized elementary stream (see Okada Figs. 4, 10(a) – 10(c) and Sako Figs. 10(a) – 10(d)).

As to claim 13, Okada teaches a recording medium where in each still picture unit includes one packet from each packetized stream (see Fig. 4).

As to claim 14, combined teachings of Okada and Sako, teaches a recording medium wherein the data area stores the presentation data in a first clip file, and stores audio data in a second clip file (see Okada Fig. 10(c), Sako col. 16 lines 66 – 67, col. 17, lines 1 - 3).

As to claim 16, Okada teaches a recording medium wherein each still picture unit includes only one still picture (see Fig. 17).

As to claim 19, claim 19 cites, **“A method of recording a data structure for managing reproduction of at least one still image on a recording medium, comprising:**

recording presentation data on the recording medium, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data.” This claim reads on claim 1 which is analyzed above.

As to claim 20 claim 20 cites, **“A method of reproducing a data structure for managing reproduction of at least one still image recorded on a recording medium, comprising:**

reproducing presentation data from the recording medium, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data.” This claim reads on claim 1 which is analyzed above.

13. Claims 4 – 7, 9, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al. (U.S. Patent Number 6,122,436) in view of Sako et al. (U.S. Patent Number 6,829,211) as applied to claims 1 – 3, 11 - 14, 16, 19 and 20 above, and further in view of Hamada et al. (U.S. Patent Number 6,999,674).

14. As to claim 4, note the discussion of Okada and Sako. The proposed combination of Okada and Sako does not teach a recording medium wherein the presentation data is multiplexed in to a transport stream. Hamada teaches a recording

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medium wherein the presentation data is multiplexed in to a transport stream (see col. 6, lines 23 – 24).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate multiplexing of still image data into transport streams as taught by Hamada in to the recording medium of Okada and Sako in order to be able to transport the data in sync with the related data associated with it.

As to claim 5, combined teachings of Okada and Hamada discloses multiplexing of still pictures on a still picture unit by still picture unit basis into a transport stream (see Okada Figs. 4, 10(a) – 10(c) and Sako Figs. 10(a) – 10(d)).

As to claim 6, note the rejection of claim 5 above. Okada further teaches a recording medium wherein each still picture unit is aligned with a physical recording unit of the recording medium (see Fig. 1).

As to claim 7, Okada teaches a recording medium wherein the recording medium is an optical disk and the physical recording unit is one of a sector and an error correction code block (see Fig. 1).

As to claim 9, Okada teaches a recording medium wherein the recording medium comprises at least one navigation area including a clip information file, the clip information file including at least one entry point map, the entry point map including at least one entry point providing at least an address of a still picture in the transport stream (see Cell_Start_Address, Cell_End_Address, Fig. 9(a), col. 18, lines 50 – 58).

As to claim 10, Okada teaches a recording medium wherein the entry point map includes an entry point associated with each still picture unit (see Fig. 9(b)).

As to claim 15, Hamada teaches a recording medium comprising: a playlist area storing at least one playlist, the playlist including at least one playitem and at least one sub-playitem (clip) (see Fig. 2, col. 6, lines 17 – 18 and 35 - 36), the playitem providing navigation information for reproducing the presentation data from the first clip file, the sub-playitem providing navigation information for reproducing the audio data from the second clip file (see col. 6, lines 11 – 18).

15. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al. (U.S. Patent Number 6,122,436), Sako et al. (U.S. Patent Number 6,829,211), and in view of Hamada et al. (U.S. Patent Number 6,999,674) as applied to claim 4 – 7, 9, 10 and 15 above, and further in view of Kato (U.S. Patent Number 7,224,890).

16. As to claim 8, Kato teaches a recording medium wherein at least on physical recording unit not filled by the associated still picture unit is filled with stuffed data (see Fig. 16, col. 14, lines 48 – 57).

Therefore it would have been obvious to one of ordinary skill at the time of the invention to incorporate filling of the physical recording unit with stuffed data as taught by Kato to the recording apparatus of Okada, Sako and Hamada in order to be able to occupy the all the predetermined bits, in this case physical locations whit and keep the contingency of the consecutive still picture units.

17. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al. (U.S. Patent Number 6,122,436) as applied to claim 7 above, and further in view of Hamada et al. (U.S. Patent Number 6,999,674).

18. As to claim 18, Hamada's teachings for rejecting claim 15 apply for claim 18 in its entirety.

19. Claims 21 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada et al. (U.S. Patent Number 6,999,674) and in view of Sako et al. (U.S. Patent Number 6,829,211).

20. As to claim 21, Hamada discloses an apparatus for recording a data structure for managing reproduction of at least one still image on a recording medium, comprising:

a driver (optical head 2) for driving an optical recording device to record data on the recording medium (see Fig. 1, col. 5, lines 7 – 9);

a controller (CPU 21) for controlling the driver to record presentation data on the recording medium, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data (see Fig. 3, col. 6, lines 22 – 34).

Hamada however does not disclose still picture units and associated related data. Sako, from the same field of endeavor, teaches still picture units and associated related data (see col. 16, lines 66 – 67, col. 17, lines 1 – 3).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate associating related data with still picture as taught by Sako to the device of Hamada in order to provide more supplemental description to the still picture visually presented to the user.

As to claim 22, claim 22 recites, **“An apparatus for reproducing a data structure for managing reproduction of at least one still image recorded on a recording medium, comprising:**

a driver for driving an optical reproducing device to reproduce data recorded on the recording medium;

a controller for controlling the driver to reproduce presentation data from the recording medium, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data.” This claim reads on claim 21 which is analyzed above.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gunji et al. (U.S. Pub. No. 2002/0172496) is used to teach recording and reproduction apparatus for recording and reproducing audio and video data.

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Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitiku Debelie whose telephone number is (571) 270 1706. The examiner can normally be reached on Mon - Fri 8:00 - 5:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on (571) 272 7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD
07/20/2007

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